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RAW SEQUENCE LISTING

3 <110> APPLICANT: UEMURA, Hidetoshi

PATENT APPLICATION: US/09/856,371A

DATE: 02/26/2002

TIME: 09:28:41

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OKUI, Akira
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              KOMINAMI, Katsuya
              YAMAGUCHI, Nozomi
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             MITSUI, Shinichi
     9 <120> TITLE OF INVENTION: NOVEL SERINE PROTEASE BSSP2
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    46 cca cac tgg gta gtg act gct gcc cac tgc atg tac agt ttc agg ctg
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    58 cct ttg tac agt gcc cag aac cat gac tat gat gtg gct ctg ctg cag
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    59 Pro Leu Tyr Ser Ala Gln Asn His Asp Tyr Asp Val Ala Leu Leu Gln
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    62 ctc cgg aca cca atc aac ttc tca gac acc gtg gac gct gtg tgc ttg
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Input Set : A:\sequence listing.txt
Output Set: N:\CRF3\02262002\I856371A.raw

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68			115			-1-		120		017	501	0111	125	++₽	Val	Del	
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71	Gly	Trp	Gly	His	Thr	Asp	Pro	Ser	His	Thr	His	Ser	Ser	Δan	Thr	T.e.ii	432
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106 107 110 111 114 115 118 119 122 123 126 127 130 131	<pre><40 Ile I Ser Pro Ser Ala 65 Pro Leu</pre>	3> OO> S Val Val His Arg 50 Val Leu Arg	RGAN EQUE Gly Met Trp 35 Leu Arg Tyr	ISM: NCE: Gly Leu 20 Val Ser Gln Ser Pro 100	Mus 2 Gln 5 Gly Val Ser His Ala 85 Ile	Ala Ser Thr Trp Gln 70 Gln Asn	Arg Ala Arg 55 Gly Asn Phe	His Ala 40 Val Thr His	Thr 25 His His Met Asp Asp	10 Cys Cys Ala Val Tyr 90 Thr	Gly Met Gly Glu 75 Asp	Ala Tyr Leu 60 Lys Val	Ser Ser 45 Val Ile Ala Ala	Val 30 Phe Ser Ile Leu Val 110	15 Leu Arg His Pro Leu 95 Cys	Ala Leu Gly His 80 Gln Leu	
106 107 110 111 114 115 118 119 122 123 126 127 130 131 134	<pre><40 Ile I Ser Pro Ser Ala 65 Pro Leu Pro</pre>	3> OO> S Val Val His Arg 50 Val Leu Arg	RGAN EQUE Gly Met Trp 35 Leu Arg Tyr	ISM: NCE: Gly Leu 20 Val Ser Gln Ser Pro 100	Mus 2 Gln 5 Gly Val Ser His Ala 85 Ile	Ala Ser Thr Trp Gln 70 Gln Asn	Arg Ala Arg 55 Gly Asn Phe	His Ala 40 Val Thr His	Thr 25 His His Met Asp Asp	10 Cys Cys Ala Val Tyr 90 Thr	Gly Met Gly Glu 75 Asp	Ala Tyr Leu 60 Lys Val	Ser Ser 45 Val Ile Ala Ala	Val 30 Phe Ser Ile Leu Val 110	15 Leu Arg His Pro Leu 95 Cys	Ala Leu Gly His 80 Gln Leu	
106 107 110 111 114 115 118 119 122 123 126 127 130 131 134 135	<pre><40 Ile I Ser Pro Ser Ala 65 Pro Leu Pro</pre>	3> OO> SOO Val His Arg 50 Val Leu Arg Ala	RGAN EQUE Gly Met Trp 35 Leu Arg Tyr Thr Lys 115	ISM: NCE: Gly Leu 20 Val Ser Gln Ser Pro 100 Glu	Mus 2 Gln 5 Gly Val Ser His Ala 85 Ile Gln	Ala Ser Thr Trp Gln 70 Gln Asn	Arg Ala Arg 55 Gly Asn Phe	His Ala 40 Val Thr His Ser Pro 120	Thr 25 His His Met Asp 105 Trp	Cys Cys Ala Val Tyr 90 Thr	Gly Glu 75 Asp Val Ser	Ala Tyr Leu 60 Lys Val Asp	Ser 45 Val Ile Ala Ala Cys 125	Val 30 Phe Ser Ile Leu Val 110 Trp	Arg His Pro Leu 95 Cys Val	Ala Leu Gly His 80 Gln Leu Ser	
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Input Set : A:\sequence listing.txt
Output Set: N:\CRF3\02262002\I856371A.raw

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147	T 011) an	C1	A ~~	165	3 an	31.	~	C1	170	3	G	G1	61	175	T	
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155	var	Cyb	195	UCI	OLY	пор	T 111 T	200	1115	пси	Val	Gry	205	Val	561	115	
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184 186 188 190	ctca tcgg ctgc caag	cato ccao aaga ctca	gta 1 gac 1 agt 0 aac 2	cttt igget ettge agate	caga cctg ggcat	gg ta ta to gg ag	atgco caggo gttt	catga cttac gctca	a ggg c tca a act	gccgg aacad cctct	gagc caag tgct	gccg agad	gecet gtgaa eeggg	gg g atc f	gcato tgtci gccti	gcacat igacat igtaga	120 180 240
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184 186 188 190 192 193	ctca tcgg ctgc caag	cate ccae aaga ctcae gc a	gta f gac f agt d aac a atg g	cttt cggct cttgg agato gaa g	caga ccto gcat ccag	gg ta ta to gg ag cag g	atgco caggo gttto gta o Val (catga cttad gctca ggg (Gly 1	a ggg c tca a act	geegg aacad cetet etg t	gagc caag tgct tgg g	ccaq gccq agaq gtt a	gccct gtgaa ccggg agc g Ser A	igg 9 atc 1 gag 9 gct a	gcato tgtci gccti aac i	gcacat Igacat Igtaga Igt	120 180 240
184 186 188 190 192 193	ctca tcgg ctgc caag ggag	cato ccao aaga ctca gc a	gta f gac f agt d aac a atg g Met 0	cttt cggct cttgg agato gaa g	caga cctg gcat ccag gcc o	gg ta ta to gg ag cag g	atgeo caggo gttto gta o /al (catga ettad getea ggg d Gly 1	a ggg c tca a act ctt o Leu 1	geegg aacad cetet etg t Leu 1	gage caag tget tgg g Trp V	ccaq gccq agaq gtt a Val S	gccct gtgaa ccggg agc g Ser A	egg g atc t gag g gct a	gcato tgtct gcctt aac t Asn (gcacat igacat igtaga igt Cys	120 180 240 288
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184 186 188 190 192 193 194 196 197	ctca tcgg ctgc caag ggag cct Pro	cate cag aaga ctca gc a tct ser -20	gta f gac f agt c aac a atg c Met (-35 ggc Gly	ccttt cggct cttgg agato gaa g Glu A cga Arg	ccaga ccctg gcat gcc c la c att	gg ta t	atgoo gttto gta g Val (tct Ser -15	catga cttac gctca ggg c Gly 1 -30 ctc Leu	a ggg c tca a act ctt c Leu l aaa Lys	geegg aacad tetet tet 1 Leu 1 tgt Cys	gage caag tgct tgg g Trp \ tct Ser	gccg agad gtt a Val S gag Glu -10	gccct gtgaa ccggg agc g Ser A -25 tgt Cys	gg gate a get a Ala A ggg	gcate gccti aac t Asn (gca Ala	gcacat tgacat tgtaga tgt Cys agg Arg	120 180 240 288
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184 186 188 190 192 193 194 196 197 198 200 201 202 204	ctca tcgg ctgc caag ggag cct Pro cct Pro -5	tct Ser -20 ctg Leu	gta frage fr	ccttt cggct cttgg agato gaa g Glu A cga Arg tct Ser	ccaga gcat gccag gcc o la o att Ile cga Arg -1 gct	gg tagg agg agg gang gang gang gang gang	atgoo gttte gta g Val o tct Ser -15 gtt Val	catga cttac gctca ggg (Gly) -30 ctc Leu ggc Gly	a ggg c tca a act ctt c Leu I aaa Lys ggc Gly	geegg aacad cetet etg t Leu T Cys caa Gln 5	gage caag tgct tgg g Trp V tct Ser gct Ala	gccg agac gtt a Val g gag Glu -10 gtg Val	geeet gtgaa geegge age g Ser A -25 tgt Cys gct Ala	gg gate a ggt a ggt a ggg Gly tct ser	gcate tgtct gcctt aac t Asn (gca Ala ggg Gly 10 tgt	gcacat gacat gtaga gt Cys agg Arg cgc Arg	120 180 240 288 336
184 186 188 190 192 193 194 196 197 198 200 201 202 204	ctca tcgg ctgc caag ggag cct Pro	tct Ser -20 ctg Leu	gta frage fr	ccttt cggct cttgg agato gaa g Glu A cga Arg tct Ser	ccaga gcat gccag gcc d la G att Ile cga Arg -1 gct	gg tagg agg agg gang gang gang gang gang	atgoo gttte gta g Val o tct Ser -15 gtt Val	catga cttac gctca ggg (Gly) -30 ctc Leu ggc Gly	a ggg c tca a act ctt c Leu I aaa Lys ggc Gly	geegg aacad cetet etg t Leu T Cys caa Gln 5	gage caag tgct tgg g Trp V tct Ser gct Ala	gccg agac gtt a Val g gag Glu -10 gtg Val	geeet gtgaa geegge age g Ser A -25 tgt Cys gct Ala	gg gate a ggt a ggt a ggg Gly tct ser	gcate tgtct gcctt aac t Asn (gca Ala ggg Gly 10 tgt	gcacat gacat gtaga gt Cys agg Arg cgc Arg	120 180 240 288 336
184 186 188 190 192 193 194 196 197 198 200 201 202 204 205 206	ctca tcgg ctgc caag ggag cct Pro cct Pro -5	tct Ser -20 ctg Leu cca	gta figac fagt of act act grant of the control of t	ccttt cggct cttgg agat gaa gaa cga Arg tct Ser caa Gln 15	ccaga gcat gcc o la o att Ile cga Arg -1 gct	gg ta ta to gg ag Sln V gtt Val ata Ile 1 agc Ser	tgco gttto gta g Val C tct Ser -15 gtt Val	catga cttac gctca ggg (Gly) -30 ctc Leu ggc Gly atg	a ggg c tca a act ctt c Leu l aaa Lys ggc Gly ctt Leu 20	tgt Cys caa Gln Gly	gage caag tgct tgg g Trp V tct Ser gct Ala tcc Ser	gccg agac gtt a Val g gag Glu -10 gtg Val cgg Arg	geect ytgas cegge age g Ser A -25 tgt Cys get Ala cac	gg gate a ggt a ggt a ggg Gly tct ser acg Thr 25	gcate gcctt acctt Asn G gca Ala ggg Gly 10 tgt Cys	gcacat tgacat tgacat cgt Cys agg Arg cgc Arg ggg Gly	120 180 240 288 336
184 186 188 190 192 193 194 196 197 198 200 201 202 204 205 206 208	ctca tcgg ctgc caag ggag cct Pro cct Pro -5 tgg	tct Ser -20 ctg Leu cca Pro	gta figac fagt of act and get of act and get of act and get of act and get act act act act act act act act act ac	ccttt cggct cttgg agat gaa gaa Glu Arg tct ser caa Gln 15 ttg	att Ile cga Arg -1 gct Ala gca	gg ta ta to gg ag tag g tag g t Val ata Ile 1 agc Ser cca	tgco gttto gtta g Val C tct Ser -15 gtt Val gtg Val	catga cttac gctca ggg (Gly 1 -30 ctc Leu ggc Gly atg Met	a ggg c tca a act ctt c Leu l aaa Lys ggc Gly ctt Leu 20 gta	tgt Cys caa Gln ggc Gly	gage caag tgct tgg g Trp V tct Ser gct Ala tcc ser	gccg agac gtt a Val S gag Glu -10 gtg Val cgg Arg	gccct gtgas ccggc agc c Ser A -25 tgt Cys gct Ala cac His	gg gate a gg gct gct gct gct gct gct gct gct gct	gcate tgtct gcctt aac t Asn o gca Ala ggg Gly 10 tgt Cys	gcacat ggacat ggtaga ggt Cys agg Arg cgc Arg ggg Gly atg	120 180 240 288 336 384
184 186 188 190 192 193 194 196 197 198 200 201 202 204 205 206 208 209 210	ctca tcgg ctgc caag ggag cct Pro cct Pro -5 tgg Trp gcc Ala	tct ser -20 ctg Leu cca Pro tct	gta frage fr	cottt crygot cagato gaa c Glu A cga Arg tct Ser caa Gln 15 ttg Leu	att Ile cga Arg ct Ala gca Ala	gg ta ta to gg ag ta gg g ta gtt Val ata Ile agc Ser cca Pro	tgco gttte gta g Val C tct Ser -15 gtt Val gtg Val cac His	catgactea gctca gctca ggg (Gly 1 -30 ctc Leu ggc Gly atg Met tgg Trp 35	a ggg c tca a act ctt o Leu l aaa Lys ggc Gly ctt Leu 20 gta Val	tgt Cys caa Gln 5 ggc Gly val	gage caag tgct tgg g Trp V tct Ser gct Ala tcc Ser act Thr	gcc agac gtt a Val S gag Glu -10 gtg Val cgg Arg	gccct gtgag gcggg agc g Ser A -25 tgt Cys gct Ala cac His gcc Ala	gg gate a gg ggt a gg g	gcate tgtct gcctt aac t Asn (gca Ala ggg Gly 10 tgt Cys tgc	gcacat ggacat ggtaga ggt Cys agg Arg cgc Arg ggg Gly atg	120 180 240 288 336 384
184 186 188 190 192 193 194 196 197 198 200 201 202 204 205 206 208 209 210	ctca tcgg ctgc caag ggag cct Pro cct Pro -5 tgg Trp gcc	tct ser -20 ctg Leu cca Pro tct	gta frage fr	cottt crygot cagato gaa c Glu A cga Arg tct Ser caa Gln 15 ttg Leu	att Ile cga Arg ct Ala gca Ala	gg ta ta to gg ag ta gg g ta gtt Val ata Ile agc Ser cca Pro	tgco gttte gta g Val C tct Ser -15 gtt Val gtg Val cac His	catgactea gctca gctca ggg (Gly 1 -30 ctc Leu ggc Gly atg Met tgg Trp 35	a ggg c tca a act ctt o Leu l aaa Lys ggc Gly ctt Leu 20 gta Val	tgt Cys caa Gln 5 ggc Gly val	gage caag tgct tgg g Trp V tct Ser gct Ala tcc Ser act Thr	gccg agac gtt a Val S gag Glu -10 gtg Val cgg Arg	gccct gtgag gcggg agc g Ser A -25 tgt Cys gct Ala cac His gcc Ala	gg gate a gg ggt a gg g	gcate tgtct gcctt aac t Asn (gca Ala ggg Gly 10 tgt Cys tgc	gcacat ggacat ggtaga ggt Cys agg Arg cgc Arg ggg Gly atg	120 180 240 288 336 384
184 186 188 190 192 193 194 196 197 198 200 201 202 204 205 206 208 209 210 212 213	ctca tcgg ctgc caag ggag cct Pro cct Pro -5 tgg Trp gcc Ala	tct ser cca pro tct ser agt	gta frage fr	ccttt cggct cttgg agat gaa gaa cga Arg tct Ser caa Gln 15 ttg Leu agg	att Ile cga Arg -1 gct Ala gca Ala ctg	gg ta ca to gg ag cag g can gtt Val ata Ile agc ser cca Pro tcc	tct ser yta val tct Ser -15 ytal val cac His	catgactical getea	a ggg c tca a act ctt (Leu 1 aaa Lys ggc Gly ctt Leu 20 gta Val	tgt Cys caa Gln ggc Gly gtg Val	gage caag tgct tgg g Trp V tct Ser gct Ala tcc Ser act Thr	gccag gccag agac gtt a yal s gag Glu -10 gtg Val cgg Arg gct Ala	gccct gtgaa ccggg agc g Ser A -25 tgt Cys gct Ala cac His gcc Ala 40 gtt	gg gate a gg gg ggt a gg g	gcate gcctt gcctt aac t Asn (gca Ala ggg Gly 10 tgt Cys tgc Cys	gcacat ggacat ggtaga ggt Cys agg Arg cgc Arg ggg Gly atg Met	120 180 240 288 336 384 432
184 186 188 190 192 193 194 196 197 198 200 201 202 204 205 206 208 209 210 212 213 214	ctca tcgg ctgc caag ggag cct Pro cct Pro -5 tgg Trp gcc Ala tac Tyr	tct ser ctg cca ctca ctca ctca ctca ctca ctca c	gta frage fr	ccttt cggct cttgg agat gaa gaa gaa cga Arg tct Ser caa Gln 15 ttg Leu agg	att Ile cga Arg -1 gct Ala ctg Leu	gg ta ca to gg ag cag g can gtt Val ata Ile 1 agc cca Pro tcc Ser	tct ser yta of tct ser ytal tct ytal ytal cac His cgc Arg	catgacttace gctca gctca gctca ggg (Sly 1 -30 ctc Leu ggc Atg Met tgg Trp 35 cta Leu	a ggg c tca a act ctt (Leu) aaa Lys ggc Gly ctt Leu 20 gta Val tcc	tgt Cys caa Gln ggc Gly gtg Val agc Ser	gage caag tgct tgg c tct Ser Ala tcc Ser act Thr tgg Trp	gccag gccag agac gtt a yal s gag Glu -10 gtg Val cgg Arg gct Ala cgg Arg	geect gtgaa gegge age g Ser A -25 tgt Cys gct Ala cac His gcc Ala 40 gtt Val	gg gate a gg g	gcate gcctt gcctt aac t Asn (gca Ala ggg Gly 10 tgt Cys tgc Cys gca Ala	gcacat tgacat tgacat tgtaga tgt Cys agg Arg cgc Arg ggg Gly atg Met	120 180 240 288 336 384 432
184 186 188 190 192 193 194 196 197 198 200 201 202 204 205 208 209 210 212 213 214 216	ctca tcgg ctgc caag ggag cct Pro cct Pro -5 tgg Trp gcc Ala tac Tyr	tct cca ctc ctser ctg cca ctc ctg ctser ctg cca ctc ctg cca ctser ctg cca ctc ctser	gta frage fr	ccttt cggct cagaa cg gaa cg Arg tct Ser caa Gln Leu agg Arg cat	att Ile cga Arg -1 gct Ala ctg Leu ggt	gg ta ta to gg ag ta gag g th Val ata Ile 1 agc cca Pro tcc ser gct	tgcgggggtttggta ggggttt ggggggttt ggggggggg	catgacttace gctca ggg (Gly 1 -30 ctc Leu ggc Atg Met tgg Trp 35 cta Leu cga	a ggg tca act ctt ctt ctt ctt ctt ctt ctt ctt	tgt Cys caa Gln 5 ggc Gly val agc ser	gage caag tget cag tget cag test cag test cag test cag test cag act test cag test can be a	gccag gccag agac gtt a yal s gag Glu -10 yal cgg Arg Arg 55 gga	geect grade grade gege Ser A -25 tgt Cys gct Ala cac His gca Ala 40 gtt Val	gg gate a gg g	gcate gcctt gcctt gcctt Asn (gca Ala ggg Gly 10 tgt Cys gca Ala gtg	gcacat ggacat ggtaga ggt Cys agg Arg cgc Arg ggg Gly atg Met	120 180 240 288 336 384 432

Input Set : A:\sequence listing.txt
Output Set: N:\CRF3\02262002\I856371A.raw

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220	aag	atc	att	cct	cat	cct	ttg	tac	agt	gcc	cag	aac	cat	gac	tat	gat	624
221	Lys	Ile	Ile	Pro	His	Pro	Leu	Tyr	Ser	Ala	Gln	Asn	His	Āsp	Tyr	Asp	
222					80					85				_	90	•	
224	gtg	gct	ctg	ctg	cag	ctc	cgg	aca	cca	atc	aac	ttc	tca	gac	acc	gtg	672
225	Val	Ala	Leu	Leu	Gln	Leu	Arg	Thr	Pro	Ile	Asn	Phe	Ser	Asp	Thr	Val	
.226				95					100					105			
228	gac	gct	gtg	tgc	ttg	ccg	gcc	aag	gag	caq	tac	ttt	cca	taa	aaa	tca	720
229	Asp	Ala	Val	Cys	Leu	Pro	Āla	Lys	Glu	Gln	Tyr	Phe	Pro	Trp	Glv	Ser	
230			110	-				115			•		120		1		
232	cag	tgc	tgg	gtg	tct	ggc	tgg	qqc	cac	acc	qac	ccc		cat	act	cat	768
233	Gln	Cys	Trp	Val	Ser	Gly	Trp	Gly	His	Thr	Asp	Pro	Ser	His	Thr	His	
234		125	_			_	130	-			-	135					
236	agc	tca	gat	aca	ctq	caq	qac	aca	atσ	qta	ccc		ctc	aσc	acc	cac	816
237	Ser	Ser	Asp	Thr	Leu	Gln	Āsp	Thr	Met	Val	Pro	Leu	Leu	Ser	Thr	His	010
238	140		-			145	•				150			501		155	
240	ctc	tgc	aac	aqc	tca	tqc	atq	tac	agt	aaa		ct.t.	aca	cac	cac		864
241	Leu	Cys	Asn	Ser	Ser	Cvs	Met	Tvr	Ser	Glv	Ala	Leu	Thr	His	Ara	Met	004
242		•			160	- 4 -		-1-		165					170	nec	
244	ttq	tgt	gct	qqc	tac	cta	gat	σσα	ασσ		gac	gca	tac	cag		gac	912
245	Leu	Cys	Ãla	Gly	Tyr	Leu	Asp	Glv	Ara	Ala	Asp	Ala	Cvs	Gln	Glv	Δsn	24.2
246		-		175	-			1	180				0,10	185	011	nsp.	
248	aqc	ggg	qqa	ccc	cta	σta	tat	ccc		aat	gac	acq	taa		ct+	αta	960
249	Ser	Gly	Glv	Pro	Leu	Val	Cvs	Pro	Ser	Glv	Asn	Thr	Trn	Hie	Len	Val	200
250		•	190				-1-	195		0-1			200	******	пси	vai	
252	aaa	gtg		agc	taa	aat.	cat		tat	gca	αaα	CCC		cac	CCa	aat	1008
253	Gly	Val	Val	Ser	Tro	Glv	Ara	Glv	Cvs	Ala	Glu	Pro	Asn	Δra	Pro	Glv	1000
254	_	205				1	210	0-1	0,2		Olu	215	71511	m 9	110	GLY	
	atc	tat	acc	aaσ	αta	αca		ttc	cta	gac	taa		cat	u a c	a a t	a+a	1056
257	Val	Tyr	Ala	Lvs	Val	Ala	Glu	Phe	Len	Asp	Trn	Tle	Hie	Aen	Thr	Val	1030
258	220	-1-		-1-		225	01 u	- 110	шси	nop	230	110	1113	тър	T 111	235	
260	caq	gtc	cac	tago	cσaa		асаа	cago	a ac	cacc		raco	rccas	act		233	1105
261	Gln	Val	Ara		- 5		. 5 0 4 5	cago	u ge	·cacc	eg eg	acy	ccya	iget			1103
				ataa	atca	ic co	cagt	ctaa	aaa	ccad	cat	ctac	rat ca	ct o	aacc	tctcc	1165
266	ccaa	aggo	tc t	gact	toga	a tt	cato	tttc	tca	teta	aga	acct	ccac	ice y	agge	aaagg	1225
268	agto	taca	ac t	agat	taga	a at	gato	ataa	gag	gaag	aga	tagg	aaaa	ca d	agga	igacag	1285
270	caga	aact	tc t	σσαα	gcat	c ta	aasa	acta	cto	ctct	act	CCCC	ccac	20 0	aaga	gtgca	1345
272	tcca	ctaa	aa a	atac	taga	or at	acco	aato	ctt	attt	ctt	ataa	aacc	ac t	anaa	ggcta	1405
274	agto	caac	tt t	ασασ	gato	c cc	tata	tcga	σασ	ttac	tag	acad	ataa	aa t	taan	gttgg	1465
276	acaa	acto	ag g	taaa	ααca	c aa	aaqt	caag	ato	ccct	ctc	cccc	atac	aa t	cata	ttctg	1525
278	aggt	aaqc	ta a	tago	ccca	c ac	caga	caga	aat	ctac	ann	ntaa	maan	wa t	acaa	ttggg	1585
280	ctac	acqa	ca c	tatt	tttc	a aa	tgat	attt	ata	taaa	tta	atta	aaaa	au t	+++4	ttatt	1645
282	aaac	agaa	at t	atot	ataa	a aa	aaaa	aaaa	aaa	2222	222	3 3	agag	ag c	cccg	ccacc	1685
285	<210	> SE	Q ID	NO:	4												1005
		> LE															
		> TY															
		> OR			Mus	sp.											
		> SE				-											
		Glu				Gly	Leu	Leu	Tro	Val	Ser	Ala	Asn	Cvs	Pro	Ser	
						-			_		_			- 4 -			

Input Set : A:\sequence listing.txt
Output Set: N:\CRF3\02262002\I856371A.raw

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293 -35
                         -30
296 Gly Arg Ile Val Ser Leu Lys Cys Ser Glu Cys Gly Ala Arg Pro Leu
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                                         -10
300 Ala Ser Arg Ile Val Gly Gly Gln Ala Val Ala Ser Gly Arg Trp Pro
            -1
304 Trp Gln Ala Ser Val Met Leu Gly Ser Arg His Thr Cys Gly Ala Ser
305
        15
                             20
308 Val Leu Ala Pro His Trp Val Val Thr Ala Ala His Cys Met Tyr Ser
312 Phe Arg Leu Ser Arg Leu Ser Ser Trp Arg Val His Ala Gly Leu Val
                    50
316 Ser His Gly Ala Val Arg Gln His Gln Gly Thr Met Val Glu Lys Ile
317
320 Ile Pro His Pro Leu Tyr Ser Ala Gln Asn His Asp Tyr Asp Val Ala
321
                                 85
324 Leu Leu Gln Leu Arg Thr Pro Ile Asn Phe Ser Asp Thr Val Asp Ala
                             100
328 Val Cys Leu Pro Ala Lys Glu Gln Tyr Phe Pro Trp Gly Ser Gln Cys
329 110
                        115
                                             120
332 Trp Val Ser Gly Trp Gly His Thr Asp Pro Ser His Thr His Ser Ser
333
                    130
                                         135
                                                              140
336 Asp Thr Leu Gln Asp Thr Met Val Pro Leu Leu Ser Thr His Leu Cys
337
                                     150
340 Asn Ser Ser Cys Met Tyr Ser Gly Ala Leu Thr His Arg Met Leu Cys
                                 165
                                                     170
344 Ala Gly Tyr Leu Asp Gly Arg Ala Asp Ala Cys Gln Gly Asp Ser Gly
345
        175
                             180
348 Gly Pro Leu Val Cys Pro Ser Gly Asp Thr Trp His Leu Val Gly Val
349 190
                        195
                                             200
                                                                  205
352 Val Ser Trp Gly Arg Gly Cys Ala Glu Pro Asn Arg Pro Gly Val Tyr
353
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356 Ala Lys Val Ala Glu Phe Leu Asp Trp Ile His Asp Thr Val Gln Val
357
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360 Arg
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365 <211> LENGTH: 2068
366 <212> TYPE: DNA
367 <213> ORGANISM: Mus sp.
369 <220> FEATURE:
370 <221> NAME/KEY: CDS
371 <222> LOCATION: (516)..(1448)
372 <223> OTHER INFORMATION:
375 <220> FEATURE:
376 <221> NAME/KEY: mat_peptide
377 <222> LOCATION: (735)..()
378 <223> OTHER INFORMATION:
381 <400> SEQUENCE: 5
382 ctggctgggc tgttgaatca atcccgacat gaggacagga gcctcaccct gcccagcaga
384 acttactgcc ttatatcagt gcagctgact catatgagtc caacactgga tgaccaaagc
```



Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

60

120

VERIFICATION SUMMARY

DATE: 02/26/2002 TIME: 09:28:42

PATENT APPLICATION: US/09/856,371A

Input Set : A:\sequence listing.txt

Output Set: N:\CRF3\02262002\I856371A.raw

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 L:1389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21